

## H 540 S, Platinum Temperature Heater

Temperature range  $-25\text{ °C}$  to  $+800\text{ °C}$ , short-term to  $+850\text{ °C}$

The Heraeus H540 S is a platinum thin film heater which combines excellent long-term stability with a wide temperature application range from  $-25\text{ °C}$  up to  $+800\text{ °C}$ . This feature makes it best suited to heat liquids, gases and solids with high precision, short reaction time and full control.

Nominal Resistance $R_0$	Tolerance	Order Number	Packaging
12 Ohm at $0\text{ °C}$	$\pm 0.5\text{ Ohm at }0\text{ °C}$	50 840 80	Plastic bag

### Temperature and tolerance range

Characteristic based on DIN EN 60751

$-25\text{ °C}$  to  $+800\text{ °C}$  (temporary use to  $+850\text{ °C}$  possible)

### Temperature coefficient

TCR = 3850 ppm/K (nominal value)

### Design

Pt-thin film on  $\text{Al}_2\text{O}_3$  – Ceramic substrate covered with glass ceramic layer and connection wires

### Long-term stability

Max.  $R_0$ -Drift  $\pm 0.5\text{ Ohm}$  after each:

- 1,000 hours at  $700\text{ °C}$ , 3 W
- 10,000 cycles 40 s on/off (room temperature to  $700\text{ °C}$ )

### Heating current

Max. 1000 mA

### Heating voltage

Max. 24 V (consider temperature-dependent resistance)

### Maximum temperature

$800\text{ °C}$

### Peak load

1 hour at  $850\text{ °C}$

### Heating time

$\geq 12\text{ sec.}$  from  $25\text{ °C}$  to  $700\text{ °C}$

Test conditions:

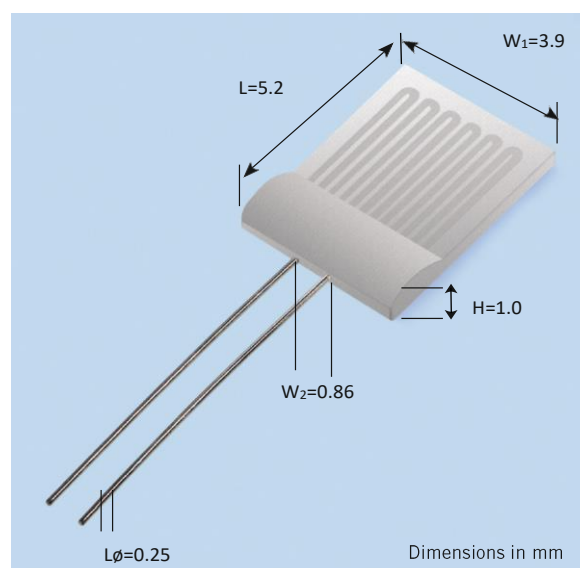
Not installed in still air at room temperature

### Leads

Pt-wire,  $\varnothing 0.25\text{ mm}$ , 6 mm

### Connection technology

Suitable for welding and brazing



### Packaging

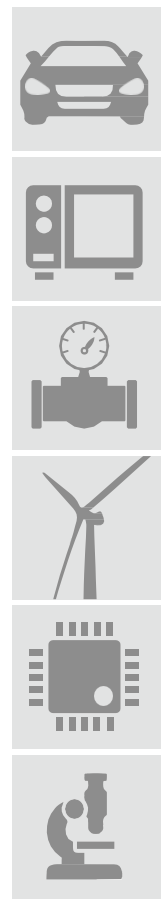
Alternative packaging forms on request.

### Environmental capability

Comply RoHS and REACH

### Note

Other tolerances, values of resistance and wire lengths are available on request.

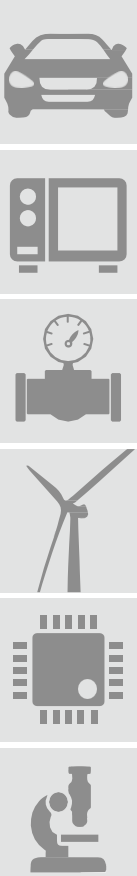


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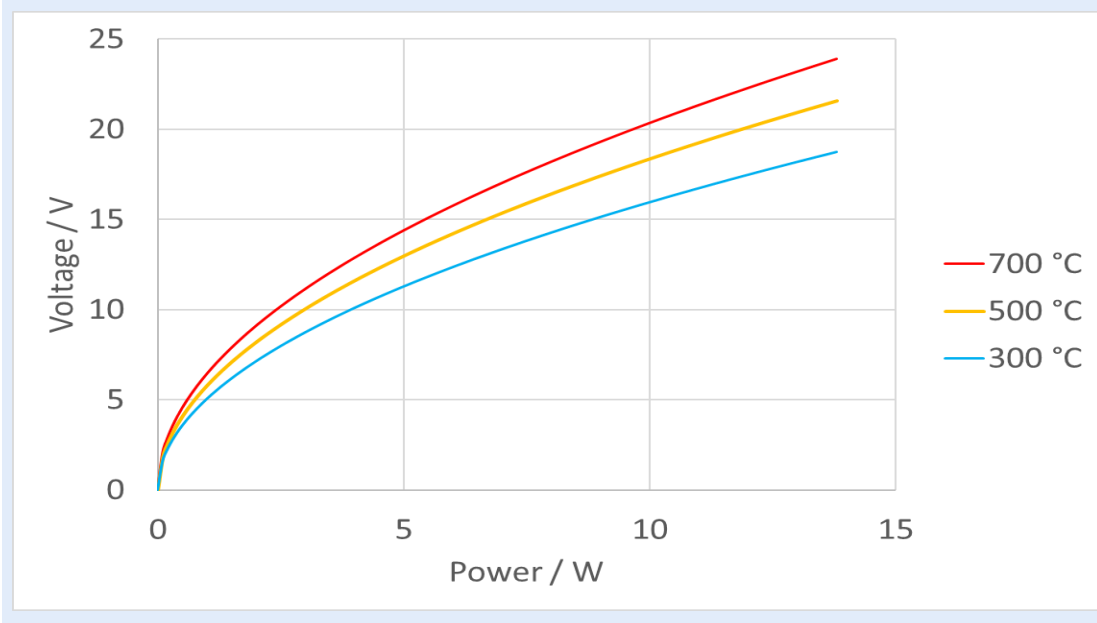
Web: [www.heraeus-nexensos.com](http://www.heraeus-nexensos.com)



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Dependence of the operating voltage on the power dissipation at different temperatures (typical values)



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